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09/631,743	08/04/2000	Richard William Ezell	49581-P022US-09906908	9812

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EXAMINER

SHINGLETON, MICHAEL B

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09-631743

Applicant(s)

Ezell

Examiner

SHINGLETON

Group Art Unit

2817

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE Three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 8-21-03
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-25 and 27-80 ☒ are pending in the application.
- Of the above claim(s) 77-80 ☒ are withdrawn from consideration.
- ☒ Claim(s) 7-25, 27-76 ☒ are allowed.
- ☒ Claim(s) 1-3, 5 and 6 ☒ are rejected.
- ☒ Claim(s) 4 ☒ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____ ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other _____

Office Action Summary

DETAILED ACTION

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ibukuro 4,961,057 (Ibukuro).

Figure 3 of Ibukuro discloses at least two series connected amplifiers wherein a “second” amplifier stage is any stage after the amplifier stage that is directly connected to a capacitor that is also directly connected to the “IN” terminal. These “second” amplifier stages include a variable capacitor CV2-4 that is adjustable so as to maintain the high frequency response of the amplifier. Note that column 3 starting at line 45 and continuing to the bottom of the column sets forth the frequency response and states that “a suitable selection of the AGC amplifiers of FIG. 2 and a suitable selection of parameters, an AGC amplifier for compensating a cable loss... can be realized.”

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ibukuro 4,961,057 (Ibukuro).

Figure 3 of Ibukuro discloses at least two series connected amplifiers wherein a “second” amplifier stage is any stage after the amplifier stage that is directly connected to a capacitor that is also directly connected to the “IN” terminal. These “second” amplifier stages include a variable capacitor CV2-4 that is adjustable so as to maintain the high frequency response of the amplifier. Note that column 3 starting at line 45 and continuing to the bottom of the column sets forth the frequency response and states that “a suitable selection of the AGC amplifiers of FIG. 2 and a suitable selection of parameters, an AGC amplifier for compensating a cable loss...can be realized”. Ibukuro does not show varying resistances for the amplifier stages so as to control the gain of these stages.

It is conventional to make the load or “common” resistors of an amplifier variable to control or vary the gain. In fact to make a non-adjustable element adjustable has been long held to not present a “patentable advance” See *In re Brandt*, 20 CCPA (Patents) 1005, 64 F. 2d 693, 17 USPQ 295. It is well known that making something adjustable allows for the setting of parameters and the calibration of the device i.e. devices and device components almost never have exactly the design values and to adjust these components to obtain the desired value exactly is common engineering practice and in fact this is in essence the well-known term “calibration”. Applicant should also note that in testing a device it is well-known to make the elements adjustable so that the operating range of the device can be determined. This is so well-known to the point of being capable of instant and unquestionable demonstration as being well-known.

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the appropriate resistive elements of Ibukuro variable so as to vary the gain as is commonly known in the art to do so, to correct for component values i.e. calibrate and to allow for the adjustability of the device to allow multiple operating point to be obtained which has been long held as not being a patentable advance.

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Ibukuro does not show a differential arrangement of transistors. A differential arrangement is a balanced arrangement known in the art to be composed of two unbalanced amplifiers.

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the unbalanced arrangement and form a balanced arrangement by composing the balanced arrangement of two unbalanced amplifiers of Ibukuro so as to be able to amplify a balanced signal as is conventionally known.

Ibukuro is silent on whether or not the device is formed on a single chip. All the elements shown in Figure 3 are integratable and integration is a well-known structure to save space.

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate the circuit of Ibukuro so as to save space as is conventionally known in the art.

Claim 4 is still objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

Claims 7-25 and 27-76 are still allowed.

Applicant's arguments filed 8-21-2003 have been fully considered but they are not persuasive. Applicant argues the functional language in claim 1 of the invention as not being present in the Ibukuro reference. The examiner respectfully disagrees as set forth below, however, it is first important to note that the functional language "wherein a high frequency response of said amplifier is maintained by selectively varying an adjustable capacitor disposed on said second amplification stage" is not supported by any claimed structure. The only structure claimed is "[a] variable gain amplifier comprising: a first amplification stage; and a second amplification stage in communication with said first amplification stage", and at most includes an adjustable capacitor. Applicant has not pointed out how the claimed structure differs structurally from the Ibukuro reference. The examiner continues to contend that Ibukuro has this claimed structure and accordingly anticipates the claimed invention. Case law is clear that the "apparatus claims must be structurally distinguishable from the prior art" see MPEP 2114. Even though the only claimed structure is a first amplifier followed by a second amplifier and possibly includes an adjustable capacitor therewith, the examiner has continuously maintained that even if structure were set forth in the claim enabling the function of "wherein a high frequency response of said amplifier is maintained by selectively varying an adjustable capacitor disposed on said second amplification stage"

that that function is also met by Ibukuro. Applicant also argues that the term “frequency response” is somehow different from that in the Ibukuro reference. Applicant cites LaRousse as defining this term. The term is broader than suggested by applicant and the examiner has cited the IEEE Standard Dictionary of Electrical and Electronics Terms that has at least five different definitions for this term. Since Applicant has not given a specific definition to this term in the specification, the examiner must give the broadest reasonable interpretation of this term. Likewise the claim states “maintained” which is a very broad term. For example interpretation of “maintained” as “maintained constant” would be reading this term too narrow. The equation 2 of Ibukuro gives a frequency response of the amplifier. Ibukuro measures a characteristic of the amplifier with respect to frequency. This is a frequency response. The cable must be considered to be part of the overall amplifier structure contrary to applicant’s belief and the whole idea of Ibukuro is to adjust the frequency response of the amplifier elements such that an overall desired frequency response is obtained. However, even if one would read Ibukuro in the narrow light as suggested by applicant, applicant should note that the frequency response of the “amplifier” would be “maintained” to be something at steady state conditions and this is due to the adjustment of the adjustable capacitance means. Thus even if such a narrow reading of Ibukuro is given the Ibukuro still anticipates the claimed invention.

Applicant believes that one would not vary the resistors of Ibukuro to adjust the gain since Ibukuro already adjusts the gain of the amplifier. The examiner respectfully disagrees. Employing multiple ways to adjust the gain still results in the gain being adjusted and allows for the gain to be adjusted in different ways that affects the circuitry differently. In fact this is merely making something adjustable that has been long held to not present a “patentable advance” (See *In re Brandt*, 20 CCPA 1005, 64 F.2d 693, 17 USPQ 295). To make the circuit elements adjustable so as to adjust the circuit elements i.e. calibrate the device so as to obtain a desired response is not a patentable advance.

Applicant states that Applicant’s specification does teach a differential arrangement that is true. Applicant then contends that the examiner has relied on applicant’s disclosure for this teaching. The examiner respectfully disagrees. It is common knowledge that a differential arrangement is in fact two single ended amplifiers combined to make a balanced arrangement. Making something balanced is well within the skill of someone of routine skill in the art.

Applicant believes that Ibukuro “teaches away” from forming the device on a single chip. It maybe true that Ibukuro teaches using multiple chips but this does not “teach away”. If true it only teaches “a” way to form the circuit.

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Applicant makes the general statement that the "Examiner has failed to properly take official notice (M.P.E.P. 2144.03)". The examiner does not know what applicant meant for applicant does not specifically point out how the Examiner has failed, however, the Examiner respectfully disagrees. Making something adjustable, going from an unbalanced to a balanced arrangement and integrating the device on a single chip are all well known to those of routine skill in the art. These items are of such common knowledge the examiner contends that they are capable of instant and unquestionable demonstration as being well-known. Also more importantly Applicant's traversal fails because applicant has not stated "why the noticed fact is not considered to be common knowledge or well-known in the art" (See 37 CFR 1.111(b) and Chevenard, 139 F.2d at 713, 60 USPQ at 241).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael B. Shingleton whose telephone number is 703-308-4903. The examiner can normally be reached on Mon-Thurs from 8:30 to 4:30. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal, can be reached on (703) 308-4909. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

MBS

September 16, 2003


MICHAEL B SHINGLETON
PRIMARY EXAMINER
3901 PART I UNIT 2817